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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,204	10/15/2003	Noah Montena	205P079	5874

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EXAMINER	
TA, THO DAC	
ART UNIT	**PAPER NUMBER**
2833	

DATE MAILED: 06/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	**Application No.** 10/686,204	**Applicant(s)** MONTENA, NOAH	
	Examiner Tho D. Ta	**Art Unit** 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,8-15 and 20-22* is/are rejected.

7)☒ Claim(s) *5-7 and 16-19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/15/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 8, 10-12, 14, 15, 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Atkins (3,184,706).

In regard to claim 1, Atkins discloses a device 10 for permanently interconnecting a hard-line coaxial cable 66 to a connection housing (equipment housing of mating connector), wherein the coaxial cable 66 includes at least a central conductor 68, a layer of dielectric material 70 covering the central conductor 68, and an outer conductor 72 composed of hard-line material, the device 10 comprising: a connector body 12 extending along a longitudinal axis; a contact 64 interconnected to and extending coaxially through the connector body 12; a collet one-piece 60 with the contact 64 for receiving the central conductor 68 of the coaxial cable 66; a compression body 132 positioned radially adjacent a portion of the connector body 12 for axial movement relative thereto between first and second positions, wherein when the compression body 132 is in its first position (fig. 5), the coaxial cable 66 is removable from within the device 10, and when the compression body 132 is in its second position (fig. 1), the coaxial cable 66 is not removable from within the device 10, a mandrel 75 housed within the connector body 12, and positioned in contacting relation to an inwardly facing surface of the outer conductor 72 when the compression body 132 is in its second position (fig. 1), and a sealing member 84 housed within the connector body 12 and in engaged relation to the compression body 132, the sealing member 84 being positioned in sealing relation to an outwardly facing surface of the outer conductor 72 when the compression body 132 is in its second position (fig. 1).

In regard to claim 2, Atkins discloses that a clamping member 110 housed within the connector body 12, wherein a tapered surface 130 of the clamping member 110 directly engages a tapered surface 134 of the compression body 132 when the compression body 132 is in its second position (fig. 1).

In regard to claim 3, Atkins discloses that a driving member 98 housed within the connector body 12 in ordered relationship between the clamping member 110 and the sealing member 84 such that when the compression body 132 is moved from its first position (fig. 5) to its second position (fig. 1), the compression body 132 forces the clamping member 110 against the driving member 98, and the driving member 98 against the sealing member 84.

In regard to claim 4, Atkins discloses that a tapering surface 90 on the sealing member 84 which interacts with a tapering surface 100 on the driving member 98 by deforming the sealing member 84 radially inward when the compression body 132 is moved from its first position (fig. 5) to its second position (fig. 1).

In regard to claim 8, Atkins discloses that a centering guide 50 having a first portion 52 coupled to the collet 64 and a second portion 58 engaging a portion 78 of the mandrel 75, and having a third portion 56 between the first and second portions 52, 58 which guides the central conductor 68 into the collet 64 upon insertion of the central conductor 68 into the connector body 12.

In regard to claim 10, Atkins discloses that the connector body 12 is elongated beyond an amount required to contain the collet 64, the centering guide 50, the mandrel 75, the sealing member 84, the driving member 98, the clamping member 110, and the compression body 132.

In regard to claim 11, Atkins discloses that means (inner threads of body 12 adjacent contact fingers 44) for connecting the device 10 to the connection housing (equipment housing of mating connector), wherein the contact 60 includes a conductive pin 62, and the connection housing is an equipment port. Although Atkins does not specifically disclosed the claimed equipment port, this feature is seen to be an inherent teaching of that device since a means 60 for providing an electrical connection between the device 10 and the mating connector is disclosed and it is apparent that some type of equipment port carrying the mating connector must be present for the device to function as intended.

In regard to claim 12, Atkins discloses that means (the inner thread adjacent contact fingers 44)for connecting the device 10 to the connection housing, wherein the contact 60 includes a solid end 62 opposite the contact 60 from the collet 64. In regard to the recitation "the connection housing is a male DIN connector", it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

In regard to claim 14, Atkins discloses that means (the inner thread adjacent contact fingers 44) for connecting the device 10 to the connection housing. In regard to the recitation "wherein the connection housing is a hardline coaxial cable", it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

In regard to claim 15, Atkins discloses that the portion 136 of the compression body 132 radially adjacent the connector body 12 is inside the connector body 12.

In regard to claim 20, Atkins discloses a device 10 for permanently interconnecting a hard-line coaxial cable 66 to a connection housing (equipment housing), wherein the coaxial cable 66 includes at least a central conductor 68, a layer of dielectric material 70 covering the central conductor 68, and an outer conductor 72 composed of hard-line material, the device comprising: a connector body 12 extending along a longitudinal axis; a contact 60 interconnected to and extending coaxially through the connector body 12; a collet one-piece 64 with the contact 60 for receiving the central conductor 68 of the coaxial cable 66; a compression body 132 positioned radially adjacent a portion of the connector body 12 for axial movement relative thereto between first and second positions, wherein when the compression body 132 is in its first position (fig. 5), the coaxial cable 66 is removable from within the device 10, and when the compression body 132 is in its second position (fig. 1), the coaxial cable 66 is not removable from within the device 10; a mandrel 75 housed within the connector body 12, and positioned in contacting relation to an inwardly facing surface of the outer conductor 72 when the compression body 132 is in its second position; and means 110, 98, 84 for clamping and/or sealing the outer conductor 72 to the mandrel 75.

3. Claims 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Szegda (4,676,577).

In regard to claim 21, Szegda discloses a splice connector for permanently interconnecting two hard-line coaxial cables 12, wherein each coaxial cable 18 includes at least a central conductor 20, a layer of dielectric material 22 covering the central conductor 20, and an outer conductor 18 composed of hard-line material, the connector comprising: a connector body 96 extending along a longitudinal axis; a contact 28 interconnected to and extending coaxially through the connector body 96; first and second collets one-piece 52 with the contact 28 for receiving the central conductors 20 of the coaxial cables 12; first and second compression bodies 42 positioned radially adjacent first and second portions of the connector body 96 for axial movement relative thereto between first and second positions, wherein when each compression body 42 is in its first position (fig. 3), the coaxial cables 12 are removable from within the splice connector, and when each compression body 42 is in its second position (fig. 7), the coaxial cables 12 are not removable from within the splice connector; first and second mandrels 32 housed within the connector body 96, and each mandrel 32 positioned in contacting relation to an inwardly facing surface of the respective outer conductors 18 when the compression bodies 42 are in their second position (fig. 7); and first and second sealing members 46 housed within the connector body 96 and in engaged relation to respective compression bodies 42, the sealing members 46 being positioned in sealing relation to an outwardly facing surface of the respective outer conductor 18 when the compression bodies 42 are in their second position (fig. 7).

In regard to claim 22, Szegda discloses a splice connector for permanently interconnecting two hard-line coaxial cables, wherein each coaxial cable 12 includes at least a central conductor 20, a layer of dielectric material 22 covering the central conductor 20, and an outer conductor 18 composed of hard-line material, the connector comprising: a connector body 96 extending along a longitudinal axis; a contact 28 interconnected to and extending coaxially through the connector body 96; first and second collets one-piece 52 with the contact 28 for receiving the central conductors 20 of the coaxial cables; first and second compression bodies 42 positioned radially adjacent first and second portions of the connector body 96 for axial movement relative thereto between first and second positions, wherein when each compression body 42 is in its first position (fig. 3), the coaxial cables 12 are removable from within the splice connector, and when each compression body 42 is in its second position (fig. 7), the coaxial cables 12 are not removable from within the splice connector; first and second mandrels 32 housed within the connector body 96, and each mandrel 32 positioned in contacting relation to an inwardly facing surface of the respective outer conductors 18 when the compression bodies 42 are in their second position; and means 46, 48 for clamping and/or sealing the outer conductors 18 to respective ones of the mandrels 32.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atkins in view of Del Negro et al. (5,586,910).

Atkins does not disclose an annular groove in an outer surface of the compression body 132; and an O-ring in the annular groove, wherein when the compression body 132 is in its second position (fig. 1), the O-ring forms a seal between the compression body 132 and the connector body 12.

Del Negro et al. discloses an annular groove in an outer surface of the compression body 16; and an O-ring 126 in the annular groove, wherein when the compression body 16 is in its second position, the O-ring 126 forms a seal between the compression body 16 and the connector body 14.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Atkins' invention by providing the groove and the O-ring in an outer surface of the compression body 132 as disclosed by Del Negro et al. in order to provide a reliable connection in moisture environment.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atkins in view of Pitschi et al. (6,716,061).

Atkins does not disclose that the contact 60 includes a second collet opposite the contact 60 from the collet 64, and the connection housing is a female DIN connector.

Pitschi et al. discloses that the contact includes a second collet 10b opposite the contact from the first collet 10 for mating with a male pin contact.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Atkins' invention by constructing the contact as disclosed by Pitschi et al. in order to provide a versatile connector.

In regard to the recitation "the connection housing is a female DIN connector", it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ2d 1647 (1987).

Allowable Subject Matter

7. Claims 5-7, 16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: In regard to claim 5, the prior art fails to provide, teach or suggest a radial distance between an inner diameter of the sealing member and an outer diameter of the mandrel is substantially equal to a radial distance between an inner diameter of the clamping member and the outer diameter of the mandrel; and in combination with all of the limitations of the base claim and any intervening claims. In regard to claim 6, the prior art fails to provide, teach or suggest a radial distance between an inner diameter of the sealing member and an outer diameter of the mandrel is less than a radial distance between an inner diameter of the clamping member and the outer diameter of the mandrel; and in combination with all of the limitations of the base claim and any intervening claims. In regard to claim 16, the prior art fails to provide, teach or suggest the portion of the compression body radially adjacent the connector body is outside the connector body; and in combination with all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tho D. Ta whose telephone number is (571) 272-2014. The examiner can normally be reached on M-F (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (571) 272-2800 ext 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

THO D. TA
PRIMARY EXAMINER

tdt
06/07/04